SEQUENCE LISTING

<110>   Nuevolution A/S

<120>   Gene shuffling by template switching

<130>   P897PC00

<140>   PCT/DK2003/000490
<141>   2003-07-11

<160>   54

<170>   PatentIn version 3.1

<210>   1
<211>   80
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<400>   1
gacctcgatc gatcgatcct ttagccctat atttagctaa tccgaatggg caggacttat        60

atggcagtag tcatcgcatc                                                     80


<210>   2
<211>   35
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<400>   2
gcttacagga cttatatggc agtagtcatc gcatc                                    35


<210>   3
<211>   80
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<400>   3
gacctcgatc gatcgatcct ttagccctat atttaatcga tccgagctta caggacttat        60

atggcagtag tcatcgcatc                                                     80


<210>   4
<211>   80
<212>   DNA

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 4
gacctcgatc gatcgatcct ttagccctat gtctggctaa tccgagctta caggacttat          60

atggcagtag tcatcgcatc                                                       80


<210> 5
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 5
taatacgact cactatag                                                         18


<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 6
gtctgatcga ccagcatggg                                                       20


<210> 7
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 7
taatacgact cactatagga cctcgatcga tcgatc                                     36


<210> 8
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 8
gatgcgatga ctactgcc                                                         18

```
<210>  9
<211>  81
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  synthetic construct

<400>  9
ggaccucgau cgaucgaucc uuuagcccua uauuuagcua auccgaaugg gcaggacuua        60

uauggcagua gucaucgcau c                                                  81


<210>  10
<211>  81
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  synthetic construct

<400>  10
ggaccucgau cgaucgaucc uuuagcccua uauuuagcua accagcgcuu acaggacuua        60

uauggcagua gucaucgcau c                                                  81


<210>  11
<211>  81
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  synthetic construct

<400>  11
ggaccucgau cgaucgaucc uuuagcccua uauuuaaucg auccgagcuu acaggacuua        60

uauggcagua gucaucgcau c                                                  81


<210>  12
<211>  81
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  synthetic construct

<400>  12
ggaccucgau cgaucgaucc uuuagcccua ugucuggcua auccgagcuu acaggacuua        60

uauggcagua gucaucgcau c                                                  81


<210>  13
```

```
<211>   6
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<220>
<221>   misc_feature
<222>   (1)..(6)
<223>   LNA oligo


<400>   13
aaggat                                                                      6


<210>   14
<211>   6
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<220>
<221>   misc_feature
<222>   (1)..(6)
<223>   LNA oligo


<400>   14
aaagga                                                                      6


<210>   15
<211>   6
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<220>
<221>   misc_feature
<222>   (1)..(6)
<223>   LNA oligo


<400>   15
taaagg                                                                      6


<210>   16
<211>   6
<212>   DNA
<213>   Artificial Sequence
```

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  16
ctaaag                                                                    6


<210>  17
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  17
gctaaa                                                                    6


<210>  18
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  18
ggctaa                                                                    6


<210>  19
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>

```
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  19
gggcta                                                                    6


<210>  20
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  20
agggct                                                                    6


<210>  21
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  21
tagggc                                                                    6


<210>  22
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo
```

```
<400>  22
ataggg                                                           6


<210>  23
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  23
tatagg                                                           6


<210>  24
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  24
atatag                                                           6


<210>  25
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  25
aatata                                                           6
```

```
<210>    26
<211>    6
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Synthetic construct

<220>
<221>    misc_feature
<222>    (1)..(6)
<223>    LNA oligo


<400>    26
aaatat                                                                    6


<210>    27
<211>    6
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Synthetic construct

<220>
<221>    misc_feature
<222>    (1)..(6)
<223>    LNA oligo


<400>    27
taaata                                                                    6


<210>    28
<211>    6
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Synthetic construct

<220>
<221>    misc_feature
<222>    (1)..(6)
<223>    LNA oligo


<400>    28
ctaaat                                                                    6


<210>    29
<211>    6
<212>    DNA
```

<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (1)..(6)
<223> LNA oligo


<400> 29
gctaaa                                                                          6


<210> 30
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (1)..(6)
<223> LNA oligo


<400> 30
agctaa                                                                          6


<210> 31
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (1)..(6)
<223> LNA oligo


<400> 31
tagcta                                                                          6


<210> 32
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

```
<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  32
ttagct                                                                          6


<210>  33
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  33
attagc                                                                          6


<210>  34
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  34
gattag                                                                          6


<210>  35
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
```

<223>  LNA oligo


<400>  35
ggatta                                                                        6


<210>  36
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  36
cggatt                                                                        6


<210>  37
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  37
tcggat                                                                        6


<210>  38
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  38

ctcgga                                                                      6


<210> 39
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (1)..(6)
<223> LNA oligo


<400> 39
gctcgg                                                                      6


<210> 40
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (1)..(6)
<223> LNA oligo


<400> 40
agctcg                                                                      6


<210> 41
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (1)..(6)
<223> LNA oligo


<400> 41
aagctc                                                                      6


<210> 42

```
<211>   6
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<220>
<221>   misc_feature
<222>   (1)..(6)
<223>   LNA oligo


<400>   42
gtaagc                                                                    6


<210>   43
<211>   6
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<220>
<221>   misc_feature
<222>   (1)..(6)
<223>   LNA oligo


<400>   43
gtaagc                                                                    6


<210>   44
<211>   6
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Synthetic construct

<220>
<221>   misc_feature
<222>   (1)..(6)
<223>   LNA oligo


<400>   44
tgtaag                                                                    6


<210>   45
<211>   6
<212>   DNA
<213>   Artificial Sequence
```

```
<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  45
ctgtaa                                                                    6


<210>  46
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  46
cctgta                                                                    6


<210>  47
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  47
tcctgt                                                                    6


<210>  48
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
```

```
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  48
gtcctg                                                                6


<210>  49
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  49
agtcct                                                                6


<210>  50
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  50
aagtcc                                                                6


<210>  51
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo
```

```
<400>  51
taagtc                                                                    6


<210>  52
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  52
ataagt                                                                    6


<210>  53
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  53
tataag                                                                    6


<210>  54
<211>  6
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<220>
<221>  misc_feature
<222>  (1)..(6)
<223>  LNA oligo


<400>  54
atatta                                                                    6
```